

S164533



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D135-1027-251
Job Sheet 190489



Part No: D135-1027-251

Job Qty: 1 pcs

Part Name: Std Height Aft Crosstube



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 2/8/19

Job Tracking No:

Due Date: 3/11/19

Created By: Jesse White

Type: SOLD

Description:

Note: D135-1027-251 REV.D IPP REV:A 17.01.24 NEW ISSUE DD VERF:JLM IPP REV:B 17.12.14 AS PER DWG
REV.C DD VERF:JFS IPP REV:C 18.11.09 AS PER DWG REV.D DD VERF:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Handfinish - 1 - Chemical	1 pcs	3/11/19		0.00	0.17	Handfinish - 1 - 1		TW
							Handfinish - 1 - 2		
							Handfinish - 1 - 3		
							Handfinish - 1 - 4		
							Handfinish - 1 - 5		
							Handfinish - 1 - 6		
							Handfinish - 1 - 7		
							Handfinish - 1 - 8		
							Handfinish - 1 - 9		
							Handfinish - 1 - 10		
							Handfinish - 1 - 11		
							Handfinish - 1 - 12		
							Handfinish - 1 - 13		
							Handfinish - 1 - 14		
							Handfinish - 1 - 15		
							Handfinish - 1 - 16		
							Handfinish - 1 - 17		
							Handfinish - 1 - 18		
							Handfinish - 1 - 19		
							Handfinish - 1 - 20		
							Handfinish - 1 - 21		
							Handfinish - 1 - 22		
105	QC 7	1 pcs	3/11/19		0.00	0.00	QC 7 - 10		
							QC 7 - 13		
							QC 7 - 14		
							QC 7 - 15		
							QC 7 - 17		
							QC 7 - 18		
							QC 7 - 19		
							QC 7 - 2		



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S164533



Part: D135 - 1027 - 251

Job No: 190489

Serial No/Batch: S164533

Revision: D

Inspector:

Exp Date:

Instructions:

Date: 03/21/19

LG049

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					QC 7 - 28	
					QC 7 - 3	
					QC 7 - 30	
					QC 7 - 34	
					QC 7 - 36	
					QC 7 - 37	
					QC 7 - 41	
					QC 7 - 47	JW
					QC 7 - 48	
					QC 7 - 51	
					QC 7 - 58	
					QC 7 - 59	
					QC 7 - 60	
					QC 7 - 9	
					QC 7 - 68	
					QC 7 - 50	
					QC 7 - 67	
					QC 7 - 40	
110 Purchasing	1 pcs	3/11/19	0.00 0.00		Purchasing - 1	03/21/2019 PL
					Purchasing - 2	
					Purchasing - 3	
120 Packaging 2-1 - Receive - B4B	1 pcs	3/11/19	0.00 0.00		Packaging 2 - 1 - B4B	
					Packaging 2 - 2 - B4B	
					Packaging 2 - 3 - B4B	
					Packaging 2 - 5 - B4B	JW 19-03-21
					Packaging 2 - 4 - B4B	
					Packaging 2 - 6 - B4B	
					Packaging 2 - 7 - B4B	
					Packaging 2 - 8 - B4B	
					Packaging 2 - 9 - B4B	
					Packaging 2 - 10 - B4B	
					Packaging 2 - 11 - B4B	
					Packaging 2 - 12 - B4B	
					Packaging 2 - 13 - B4B	
					Packaging 2 - 14 - B4B	
					Packaging 2 - 15 - B4B	
					Packaging 2 - 16 - B4B	
					Packaging 2 - 17 - B4B	
					Packaging 2 - 18 - B4B	
					Packaging 2 - 19 - B4B	
					Packaging 2 - 20 - B4B	
					Packaging 2 - 21 - B4B	
					Packaging 2 - 22 - B4B	
					Packaging 2 - 23 - B4B	
					Packaging 2 - 24 - B4B	
					Packaging 2 - 25 - B4B	
					Packaging 2 - 26 - B4B	
					Packaging 2 - 27 - B4B	
					Packaging 2 - 28 - B4B	
					Packaging 2 - 29 - B4B	
					Packaging 2 - 30 - B4B	
					Packaging 2 - 31 - B4B	
					Packaging 2 - 32 - B4B	
					Packaging 2 - 33 - B4B	
					Packaging 2 - 34 - B4B	
					Packaging 2 - 35 - B4B	
					Packaging 2 - 36 - B4B	
130 QC 6	1 pcs	3/11/19	0.00 0.00		QC 6 - 42	
					QC 6 - 9	19-03-21

132	Crosstubes - 2 - B4B	1 pcs	3/11/19	0.00 1.00	QC 6 - 68	
					QC 6 - 61	
					Crosstubes - 1 - B4B	5/4/2019
					Crosstubes - 2 - B4B	
					Crosstubes - 3 - B4B	
135	QC 15	1 pcs	3/11/19	0.00 0.00	Crosstubes - 4 - B4B	
					QC 15 - 12	
					QC 15 - 3	
					QC 15 - 47	
					QC 15 - 49	
140	Outsource	1 pcs	3/11/19	0.00 0.00	QC 15 - 58	
					QC 15 - 9	
					SKY002-VC	5 19.04.05
					Packaging 2 - 1 - B4B	5 10043076 APR 0 8 2019
					Packaging 2 - 2 - B4B	
150	Packaging 2-2 - Receive - B4B	1 pcs	3/11/19	0.00 0.00	Packaging 2 - 3 - B4B	
					Packaging 2 - 5 - B4B	
					Packaging 2 - 4 - B4B	
					Packaging 2 - 6 - B4B	
					Packaging 2 - 7 - B4B	
					Packaging 2 - 8 - B4B	
					Packaging 2 - 9 - B4B	
					Packaging 2 - 10 - B4B	
					Packaging 2 - 11 - B4B	
					Packaging 2 - 12 - B4B	
					Packaging 2 - 13 - B4B	
					Packaging 2 - 14 - B4B	
					Packaging 2 - 15 - B4B	
					Packaging 2 - 16 - B4B	
					Packaging 2 - 17 - B4B	
					Packaging 2 - 18 - B4B	
					Packaging 2 - 19 - B4B	
					Packaging 2 - 20 - B4B	
					Packaging 2 - 21 - B4B	
					Packaging 2 - 22 - B4B	
					Packaging 2 - 23 - B4B	
					Packaging 2 - 24 - B4B	
					Packaging 2 - 25 - B4B	
					Packaging 2 - 26 - B4B	
					Packaging 2 - 27 - B4B	
					Packaging 2 - 28 - B4B	
					Packaging 2 - 29 - B4B	
					Packaging 2 - 30 - B4B	
					Packaging 2 - 31 - B4B	
					Packaging 2 - 32 - B4B	
					Packaging 2 - 33 - B4B	
					Packaging 2 - 34 - B4B	
					Packaging 2 - 35 - B4B	
					Packaging 2 - 36 - B4B	
160	QC 6	1 pcs	3/11/19	0.00 0.00	QC 6 - 42	
					QC 6 - 9	
					QC 6 - 68	
					QC 6 - 61	
170	Packaging 3-1 - Stock - B4B	1 pcs	3/11/19	0.00 0.00	Packaging 3 - 1 - B4B	
					Packaging 3 - 2 - B4B	
					Packaging 3 - 3 - B4B	
					Packaging 3 - 4 - B4B	
					Packaging 3 - 5 - B4B	
					Packaging 3 - 6 - B4B	

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Packaging 3 - 7 - B4B	
Packaging 3 - 8 - B4B	
Packaging 3 - 9 - B4B	
Packaging 3 - 10 - B4B	
Packaging 3 - 11 - B4B	
Packaging 3 - 12 - B4B	
Packaging 3 - 13 - B4B	
Packaging 3 - 14 - B4B	
Packaging 3 - 15 - B4B	
Packaging 3 - 16 - B4B	
Packaging 3 - 17 - B4B	
Packaging 3 - 18 - B4B	
Packaging 3 - 19 - B4B	
Packaging 3 - 20 - B4B	
Packaging 3 - 21 - B4B	
Packaging 3 - 22 - B4B	
Packaging 3 - 23 - B4B	
Packaging 3 - 24 - B4B	
Packaging 3 - 25 - B4B	
Packaging 3 - 26 - B4B	
Packaging 3 - 27 - B4B	
Packaging 3 - 28 - B4B	
Packaging 3 - 29 - B4B	
Packaging 3 - 30 - B4B	
Packaging 3 - 31 - B4B	
Packaging 3 - 32 - B4B	
Packaging 3 - 33 - B4B	
Packaging 3 - 34 - B4B	
Packaging 3 - 35 - B4B	
Packaging 3 - 36 - B4B	

180 QC 21 - FG	1 pcs	3/11/19	0.00 0.00	QC 21 - FG - 21	
				QC 21 - FG - 70	
				QC 21 - FG - 53	

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Part Op 100 - (Chemical Conversion Coat per QSI005 4.1) Alodine prior to sending the extrusion to an outside vendor.
 Descriptions: 105 - (QC7-Inspect Chemical Conversion Coat)
 110 - Issue P/O to Tube Caron: _____ Manufacture D135-1027-251 as per dwg (Bend, Remove excess material after bending) **Ship extrusion D6026-110** ***AS PER DWG NOTE 10, EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.*** Material release note is required
 120 - (Receive & Inspect for Damage & Mat'l Certs) Ensure material release note is attached
 130 - (QC6- All purchased or subcontracted products)
 132 - (Crosstube Grinding Booth) REMOVE ALL MARK AS PER DWG
 135 - (QC15- Crosstube Dimensional Check)
 140 - ISSUE P/O: _____ C OF C IS REQUIRED
 150 - (Receive & Inspect for Damage & Mat'l Certs) OF C IS REQUIRED
 160 - (QC6- All purchased or subcontracted products)
 170 - (Identify as per dwg & Stock Location: _____)
 180 - (QC21- Final Inspection - Work Order Release)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6026-110	Crosstube Material	1 Ea (1 ea)	100-Handfinish - 1 - Chemical	5152384
D135-1027-251P	Std Height Aft Crosstube	1 pcs (1 ea)	120-Packaging 2-1 - Receive - B4B	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Handfinish - 1 - Chemical	D6026-110	1	24	0
120-Packaging 2-1 - Receive - B4B	D135-1027-251P	1	6	0

Part Specifications
Specifications could not be found.

Plex 3/15/19 3:57 PM Dart.Hadley.Shannon



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K6A 1K7
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D135-1027-251
Job Sheet 190489



Part No: D135-1027-251

Job Qty: 1 ea

Part Name: Std Height Aft Crosstube



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 2/8/19

Job Tracking No:

Due Date: 3/11/19

Created By: Jesse White

Type: SOLD

Description:

Note: D135-1027-251 REV.D IPP REV:A 17.01.24 NEW ISSUE DD VERF:JLM IPP REV:B 17.12.14 AS PER DWG
REV.C DD VERF:JFS IPP REV:C 18.11.09 AS PER DWG REV.D DD VERF:JFS

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		3/11/19	0.00	0.00	Start Up Handfinish		
100	HandFinish	1 pcs		3/11/19	0.00	0.17	HandFinish1		
105	QC	1 pcs		3/11/19	0.00	0.00	QC7-5		
110	Purchasing	1 pcs		3/11/19	0.00	0.00	Purchasing		
120	Packaging	1 pcs		3/11/19	0.00	0.00	Packaging2		
130	QC	1 pcs		3/11/19	0.00	0.00	QC6		
132	Crosstubes	1 pcs		3/11/19	0.00	1.00	Crosstube Grinding Booth		
135	QC	1 pcs		3/11/19	0.00	0.00	QC15		
140	Outsource	1 pcs		3/11/19			SKY002-VC	5	
150	Packaging	1 pcs		3/11/19	0.00	0.00	Packaging2		
160	QC	1 pcs		3/11/19	0.00	0.00	QC6		
170	Packaging	1 pcs		3/11/19	0.00	0.00	Packaging3-1		
180	QC21-FG	1 Ea		3/11/19	0.00	0.00	QC21		

Part Op 100 - Alodine prior to sending the extrusion to an outside vendor.

Descriptions: 110 - Issue P/O to Tube Caron: 042507 Manufacture D135-1027-251 as per dwg (Bend, Remove excess material after bending) **Ship extrusion D6026-110** ***AS PER DWG NOTE 10, EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.*** Material release note is required

120 - Ensure material release note is attached

132 - REMOVE ALL MARK AS PER DWG

140 - ISSUE P/O: _____ C OF C IS REQUIRED

150 - C OF C IS REQUIRED

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Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6026-110	Crosstube Material	1 Ea (1 ea)	90-Start up Operation	
D135-1027-251P	Std Height Aft Crosstube	1 pcs (1 ea)	120-Packaging	

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐ ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled		FAULT CATEGORY ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					

Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	D6026-110	1	24	0
120-Packaging	D135-1027-251P	1	6	0
Part Specifications				
Specifications could not be found.				

Plex 2/8/19 4:08 PM dart.white.jesse

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO042567



Supplier: TUB001-VC
Tube Caron Inc.
99 Louis-Joseph-Doucet Street
Lanoraie
QC
JOK 1EO Canada
Phone: 450-887-2766
Fax: 450-887-2897

PO No: PO042567
PO Date: 2/11/19
Due Date: 3/22/19
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	190567	D135-1027-253	Mid Height Aft Crosstube (Purchasing) Issue P/O to Tube Caron: Manufacture D135-1027-253 as per dwg (Bend, Remove excess material after bending) **Ship extrusion D6027-115** ***AS PER DWG NOTE 10, EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.*** Material release note is required	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00

IX MAR 21 2019

Line Item Note REV C

190568	IX MAR 21 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
190569	IX MAR 21 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
191900	IX MAR 21 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
191901	IX MAR 21 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
Sub Total:					5	0	5		\$1,500.00



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PURCHASE ORDER

PO042567



Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
12	190489	D135-1027-251	Std Height Aft Crosstube Issue P/O to Tube Caron: Manufacture D135-1027-251 as per dwg (Bend, Remove excess material after bending) **Ship extrusion D6026-110** ***AS PER DWG NOTE 10, EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.*** Material release note is required	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
1X MAR 21 2019 REV D											
	190571	1X	MAR 21 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
	190572	1X	MAR 21 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
	191903	1X	MAR 21 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
	191905	1X	MAR 21 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
	191907	1X	MAR 21 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
Sub Total:							6	0	6		\$1,800.00



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PURCHASE ORDER

PO042567



Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	190560	D135-1027-153	Mid Height Fwd Crosstube Issue P/O to Tube Caron: Manufacture D135-1027-153 as per dwg (Bend, Remove excess material after bending) **Ship extrusion D6025-120** ***AS PER DWG NOTE 10, EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.*** Material release note is required	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
Line Item Note REV B											
	190562	1 X	MAR 2 1 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
	190564	1 X	MAR 2 1 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
	191909	1 X	MAR 2 1 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
	191910	1 X	MAR 2 1 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
Sub Total:							5	0	5		\$1,500.00



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PURCHASE ORDER

PO042567



Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4	190575	D135-1027-151	Std Height Fwd Crosstube Purchasing - Issue P/O to Tube Caron: Manufacture D135-1027-151 as per dwg (Bend, Remove excess material after bending) **Ship extrusion D6025-120** ***AS PER DWG NOTE 10, EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.*** Material release note is required	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00

1 X MAR 21 2019

Line Item Note

REV D											
	190576	1 X	MAR 21 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
	191908	1 X	MAR 21 2019	Firmed	-	3/22/19	1 pcs	0 pcs	1 pcs	\$300.00/pcs	\$300.00
						Sub Total:	3	0	3		\$900.00

Grand Total: \$5,700.00

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retension of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 3/21/19 12:52 PM dart.Lussier.Patrick

**SHIPPING BILL****BOL 14944****13/03/2019****Tube Caron Inc.**

99 Louis-Joseph-Doucet
Lanoraie, QC, Canada
J0K 1E0
Phone: 450-887-2766

Fax: 450-887-2897

Ship To:

Dart Aerospace Ltd
1270 Aberdeen Street
Hawkesbury, ON, Canada
K6A 1K7
Phone : 613-632-1053

Fax : 613-632-4443

Sold To:

Dart Aerospace Ltd
1270 Aberdeen Street
Hawkesbury, ON, Canada
K6A 1K7
Phone : 613-632-5200

Fax : 613-632-4443

Third Party Billing:

Ln	Item	Qty	Po	Job	Weight	UOM
1	PALETTE	1			20.00	Pounds
	D135-1027-151 REV D	1	✓ PO042567	J21867-11	13.36	Pounds
	D135-1027-151 REV D	1	✓ PO042567	J21867-12	13.36	Pounds
	D135-1027-151 REV D	1	✓ PO042567	J21867-16	13.36	Pounds
	D135-1027-153 REV B	1	✓ PO042567	J21867-10	14.57	Pounds
	D135-1027-153 REV B	2	✓ PO042567	J21867-15	29.14	Pounds
	D135-1027-153 REV B	1	✓ PO042567	J21867-8	14.57	Pounds
	D135-1027-153 REV B	1	✓ PO042567	J21867-9	14.57	Pounds
	D135-1027-251 REV D	1	✓ PO042567	J21867-5	16.21	Pounds
	D135-1027-251 REV D	1	✓ PO042567	J21867-6	16.21	Pounds
2	PALETTE	1			20.00	Pounds
	D135-1027-251 REV D	3	✓ PO042567	J21867-14	48.64	Pounds
	D135-1027-251 REV D	1	✓ PO042567	J21867-7	16.21	Pounds
	D135-1027-253 REV C	1	✓ PO042567	J21867-1	19.81	Pounds
	D135-1027-253 REV C	2	✓ PO042567	J21867-13	39.62	Pounds
	D135-1027-253 REV C	1	✓ PO042567	J21867-2	19.81	Pounds
	D135-1027-253 REV C	1	✓ PO042567	J21867-3	19.81	Pounds
	D135-1027-253 REV C	1	✓ PO042567	J21867-4	19.81	Pounds

Carrier:
Phone:
Way Bill:

Journey Freight
1-888-633-1252 #3221

Fob:
Freight Charges:

Fob Lanoraie
Collect

Total Of Packages :

2 PALETTES
96 X 32 X 36
96 X 32 X 36

Total Weight:

369.06 #

Carrier : Journey Freight

Shipper : Tube Caron Inc.

Declared Value :

(No Additional Insurance Required)

Not Applicable For Insurance Purposes

14-03-2019

CERTIFICATE OF CONFORMANCE

CUSTOMER : Dart Aerospace

DATE : March 21, 2019

P.O.# PO042567

I certify that the following parts were manufactured to the specifications stated on the drawings listed below.

Note: Material for manufacturing of parts is provided by Dart Aerospace.

PART NO.	QTY.	DRAWING NO. / REV.
D135-1027-253 ✓ MID HEIGHT AFT XTUBE	6 ✓	D135-1027-253 / REV.C
D135-1027-153 ✓ MID HEIGHT FWD XTUBE	5 ✓	D135-1027-153 / REV.B
D135-1027-151 ✓ STD HEIGHT FWD XTUBE	3 ✓	D135-1027-151 / REV.D
D135-1027-251 ✓ STD HEIGHT AFT XTUBE	6 ✓ <i>RD 19.03.21</i>	D135-1027-153 / REV.D

Sincerely,

Kevin Gadoury

Kevin Gadoury

DART AEROSPACE LTD		Work Order:	190489
Description: STD HEIGHT AFT CROSSTUBE		Part Number:	D135-1027-251
Inspection Dwg: D135-1027-251	Rev: C.D.	Page 1 of 2	

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.700" TYP	+/-0.005"	2.695/2.695	✓			
8.34 2.09 7.07" TYP	+/-0.030"	8.34/8.34	✓			
2.17" REF	+/-0.030"	2.09	✓			
3.13" TYP	+/-0.030"	3.132/3.123	✓			
Ø.194" THUR 2PL	+0.006" -0.001"	0.193	✓			
Ø.194" THUR	+0.006" -0.001"	0.193	✓			
17.0" 2PL	+/-0.100"	17"	✓			
Ø.313" THUR 4PL	+0.006" -0.001"	0.313/0.314	✓			
Ø.670" THUR 2PL	+0.006" -0.001"	0.676/0.674	✓			

WALL THICKNESS MEASUREMENTS

LOCATION FROM CL	DWG DIM	R1 TOP	R2 BOT	R3 FRONT	R4 BACK			
CL	0.177"	0.174	0.174	0.177	0.179			
21" LEFT	0.177"	0.174	0.181	0.177	0.175			
21" RIGHT	0.177"	0.170	0.179	0.180	0.176			
CENTER OF BEND L	0.177"	0.162	0.174	0.175	0.175			
CENTER OF BEND R	0.177"	0.159	0.191	0.175	0.172			

OUTSIDE DIAMETER MEASUREMENTS

LOCATION	DWG DIM	M1	M2				
CL	3.543"						
CENTER OF BEND	3.543"						
CENTER OF BEND	3.543"						

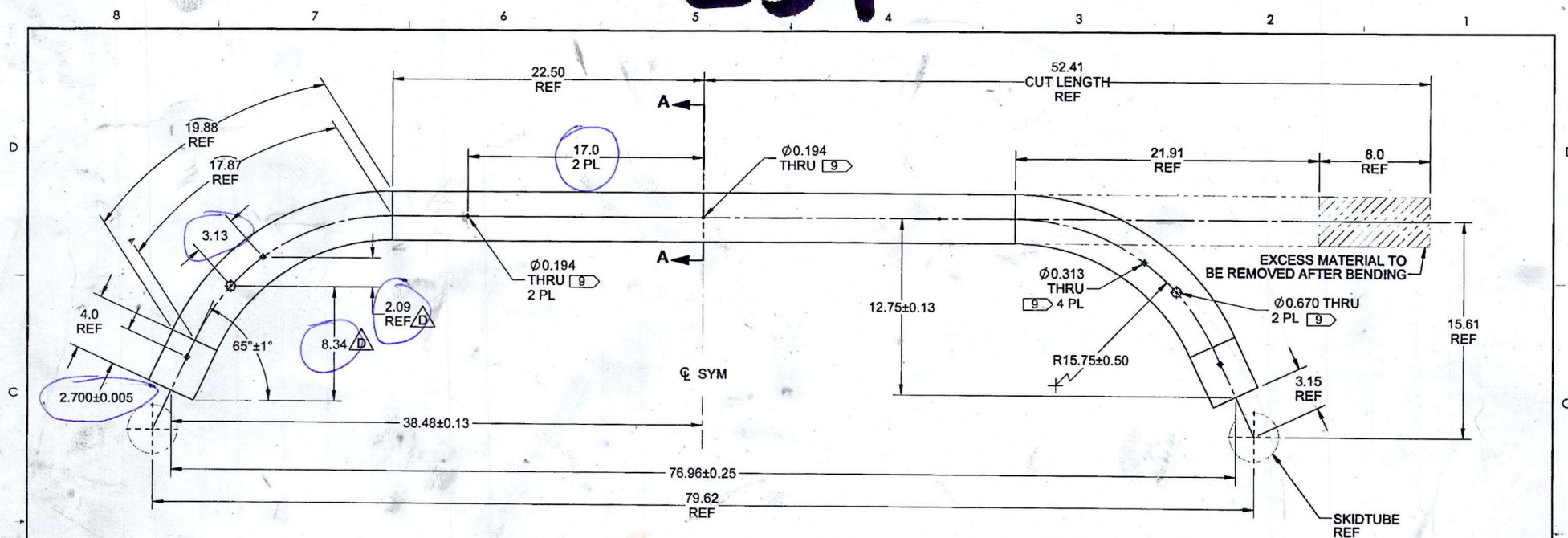
CRUSHING

	SIDE A	SIDE B
MAX 2%	.04%	.08%

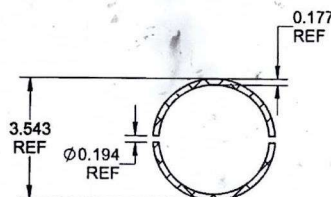
TWIST

	SIDE A	SIDE B
MAX 0.25"		

251



D135-1027-251 STD HEIGHT AFT CROSSTUBE



SECTION A-A
SCALE 2X

NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6026-105
STRAIGHT LENGTH = 104.82±0.06 (BEFORE BENDING / TRIMMING)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: PER QSI 044 6.1
- 7) WEIGHT: 16.83 lbs
- 8) MAX TWIST: WITH XTUBE LAYED FLAT ON SURFACE, THE DIFFERENCE BETWEEN CUFF HEIGHTS FROM THE SURFACE SHALL BE NO LARGER THAN 0.25
- 9) HOLES TO BE ALIGNED WITHIN 0.005 IN RELATION TO THE HOLE ON OPPOSITE SIDE OF CROSSTUBE
- 10) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038. TO BE PERFORMED AFTER FINAL POST-BEND GRINDING. ANY ADDITIONAL GRINDING REQUIRES ANOTHER LPI INSPECTION.
- 12) MAXIMUM TUBE FLATTENING DUE TO BENDING IS 2% BASED ON OD.

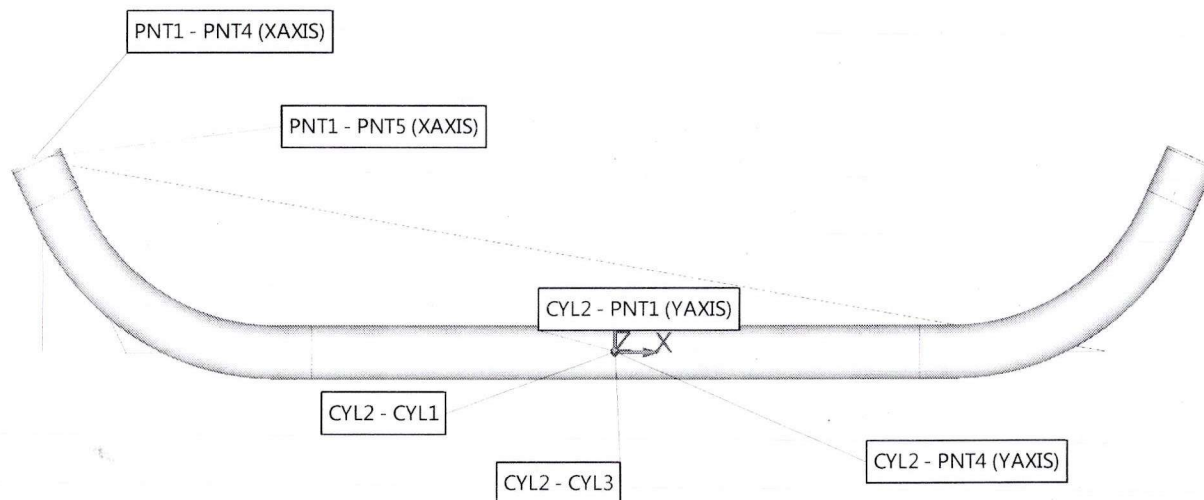
RELEASED

2018 OCT 31
2018-834

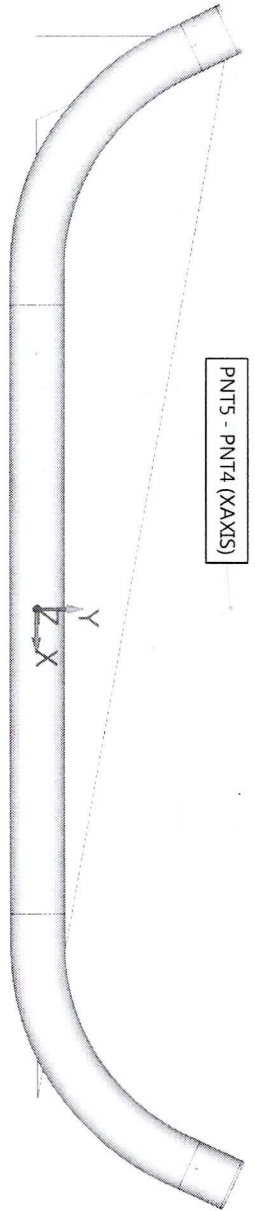
D	MOVED GH AND STEP HOLES DIM 8.34 WAS 7.97	ZF	18.10.04
C	ZONE C2, 3.15 DIM WAS 4.00. ACCORDINGLY 15.61 WAS 16.38 AND 79.62 WAS 80.34. REASON: D5424-1 SPACER DELETED FROM INSTALLATION.	ML	17.09.07
B	CORRECTED TITLE ERROR, 3.13 WAS 3.15, 7.97 WAS 7.79. REASON: DESIGN UPDATE	ML	17.05.25
A	NEW ISSUE	ML	17.01.31
REV.	DESCRIPTION	BY	DATE
DESIGN	ML	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D135-1027-251 REV. D SHEET 1 OF 1 SCALE STD HEIGHT AFT XTUBE NTS COPYRIGHT © 2017 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN	ZF		
CHECKED	MW		
MFG. APPR.	DD		
APPROVED	ML		
DE APPR.	CP	DATE 18.10.04	

APPROVED

521



pcdmis		PART NAME : D135-1027-251_Pilage+Coupe				mars 09, 2019		15:16	
		REV NUMBER : Rev.C		SER NUMBER : 5164533		STATS COUNT : 1			
∠	DEG	ANGL1 - CYL2 TO CYL1							
AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL			
A	-64.9925	0.5000	0.5000	-64.7371	0.2554	0.0000			
∠	DEG	ANGL2 - CYL2 TO CYL3							
AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL			
A	64.9925	0.5000	0.5000	65.2485	0.2560	0.0000			
↔	IN	DIST1 - PNT1 TO PNT4 (XAXIS)							
AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL			
M	76.9610	0.2500	0.2500	76.9637	0.0027	0.0000			
↔	IN	DIST2 - CYL2 TO PNT1 (YAXIS)							
AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL			
M	12.7469	0.1300	0.1300	12.7084	-0.0385	0.0000			
↔	IN	DIST3 - CYL2 TO PNT4 (YAXIS)							
AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL			
M	12.7469	0.1300	0.1300	12.7554	0.0085	0.0000			
↔	IN	DIST4 - PNT1 TO PNT5 (XAXIS)							
AX	NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL			
M	38.4805	0.1300	0.1300	38.4818	0.0013	0.0000			



↔		IN	DISTS - PNT5 TO PNT4 (XAXIS)				
AX		NOMINAL	+TOL	-TOL	MEAS	DEV	OUTTOL
M		38.4805	0.1300	0.1300	38.4818	0.0013	0.0000

4.1 Follow the following requirements (unless otherwise stated):

1. Dimensions are in inches.
2. Surface roughness 125!. (Visual inspection accepted).
3. Remove sharp edges .015 max.
4. Threads per MIL-S-7742
5. Holes per the following table: (source: AND10387)

Hole Diameter Tolerance

0.0135 to 0.125 + 0.004 / - 0.001

0.126 to 0.250 + 0.005 / - 0.001

0.251 to 0.500 + 0.006 / - 0.001

0.501 to 0.750 + 0.008 / - 0.001

0.751 to 1.000 + 0.010 / - 0.001

1.001 to 2.000 + 0.012 / - 0.001

6. Dimensions: X.X +/- 0.100

X.XX +/- 0.030

X.XXX +/- 0.010

7. Angles +/- 1/2°

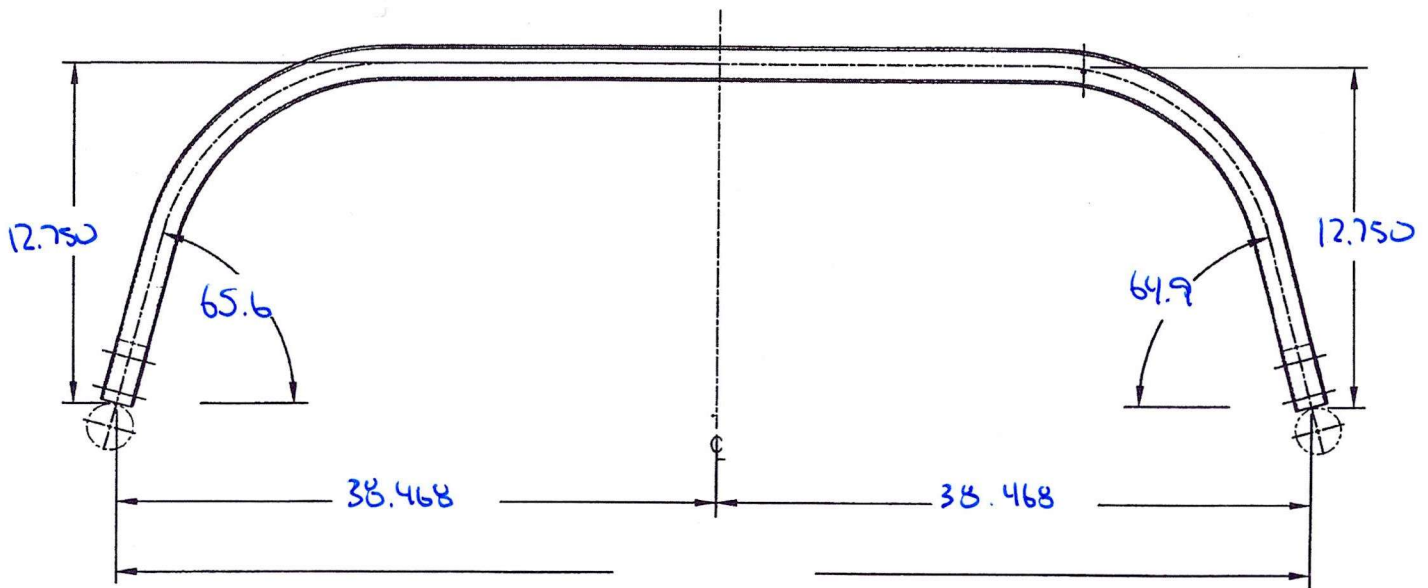
8. Parallelism +/- 0.0025

9. Eccentricity 0.005 Max

10. Symmetry about all M/C center lines 0.005

DART AEROSPACE LTD		Work Order: 190435
Description: STD HEIGHT AFT CROSSTUBE		Part Number: D135-1027-251
Inspection Dwg: D135-1027-251	Rev: C	Page 2 of 2

Required Dimension	Min	Max
Height	12.62"	12.88"
1/2 Span	38.35"	38.61"
Angle	64°	66°
Total Span	76.70"	77.22"
Bending Passes		
Crushing	0%	2%



Measured by:		Checked by: D	QC Inspector:
Date:		Date: 19.04.04	Date:

Engineering Approval: (If necessary)		Date:	
--	--	--------------	--

Rev	Date	Change	Revised by	Approved
A	18/01/16	New Issue	ED	



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO043076



Supplier: SKY002-VC
Skyservice
6120 Midfield Road
Mississauga
ON
L5P 1B1 Canada
Phone: 905-678-5636
Fax: 905-678-5841

Attention: Jenne, Heather

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO043076

PO Date: 4/3/19

Due Date: 4/11/19

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

Via: Ground

Pynt Terms: Net 30

Freight Terms:

Special Comments:

E-MAILED
APR 10 2019

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	192114	D206-667-107BL	Fwd Crosstube - Mid Height 206L / L1 / L3 / L4, Blue : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: _____ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed	-	4/11/19	1 pcs	0 pcs	1 pcs	\$131.875/pcs	\$131.88
	192115			Firmed	-	4/11/19	1 pcs	0 pcs	1 pcs	\$131.875/pcs	\$131.88
	192116			Firmed	-	4/11/19	1 pcs	0 pcs	1 pcs	\$131.875/pcs	\$131.88
Sub Total:							3	0	3		\$395.63

1 X APR 11 2019

1 X APR 11 2019



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO043076



Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
2	192117	D206-667-207BL	Aft Crosstube - Mid Height 206L / L1 / L3 / L4, Blue : TC STC SH01-5 Issue 3, FAA STC SR01304NY 05/12/15, JCAB JAPAN STC-32-OSA 02/02/28, EASA STC EASA.IM.R.S.01179 06/07/03, BRAZIL 2009S08-16 09/08/25, BRAZIL 2009S08-17 09/08/25 Outsource process - NDT per QSI038 4.1 *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: _____ LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	Firmed -	-	4/11/19	1 pcs	0 pcs	1 pcs	\$131.875/pcs	\$131.88
	192118			Firmed -	-	4/11/19	1 pcs	0 pcs	1 pcs	\$131.875/pcs	\$131.88
Sub Total:							2	0	2		\$263.75
3	190489	D135-1027-251	Std Height Aft Crosstube - DO NOT USE ISSUE P/O: _____ C OF C IS REQUIRED	Firmed -	-	4/11/19	1 pcs	0 pcs	1 pcs	\$131.875/pcs	\$131.88
4	191900	D135-1027-253	Mid Height Aft Crosstube - DO NOT USE ISSUE P/O: _____ C OF C IS REQUIRED	Firmed -	-	4/11/19	1 pcs	0 pcs	1 pcs	\$131.875/pcs	\$131.88
	191901			Firmed -	-	4/11/19	1 pcs	0 pcs	1 pcs	\$131.875/pcs	\$131.88
Sub Total:							2	0	2		\$263.75
Grand Total:										\$1,055.00	



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO043076



Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

CL
A handwritten signature in blue ink, appearing to be "CL" followed by a stylized flourish.

Plex 4/10/19 12:39 PM dart.lavoie.chantal

**skyservice****Work Order Traveler**
Sky Service F.B.O. Inc.

10105 Ryan Avenue, Dorval, Quebec, H9P 1A2

TCCA AMO 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO39884	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: PO043076
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:**CARRY OUT NDT INSPECTION (LIQUID PENETRANT) ON 8 CROSSTUBES**

ITEM ID: D135-1027-251 STB HEIGHT AFT CROSSTUBE

1 - WORK ORDER ID#: 190489

ITEM ID: D135-1027-253 MID HEIGHT AFT CROSSTUBE

2 - WORK ORDER ID#: 191900

3 - WORK ORDER ID#: 191901

ITEM ID: D206-667-107BL FWD CROSSTUBE - MID HEIGHT 206L / L1 / L3 / L4, BLUE.

4 - WORK ORDER ID#: 192114

5 - WORK ORDER ID#: 192115

6 - WORK ORDER ID#: 192116

ITEM ID: D206-667-207BL

7 - WORK ORDER ID#: 192117

8 - WORK ORDER ID#: 192118

Action Taken:						Date:	Initial/Stamp:
LIQUID PENETRANT INSPECTION CARRIED OUT ON ITEMS LISTED ABOVE (ITEMS 1-8) AS PER ASTM1417M-16						APR 6 5 2019	DOT-APP 61 53-89 L
NO CRACK FOUND							
PEN ZL-37, MPO23206, CLEANER SKC-S MPO15030, EMU. MPO15896, DEV. MPO23451, UV LIGHT M-20142							
Description	Location	P/N	Qty	Batch	S/N Off	S/N On	

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature:		ACA/SCA Stamp DOT-APP 61 53-89	Date: APR 6 5 2019
Name:	ANTONINO MARCHETTA		